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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,792	01/28/2004	Edwin C. Weldon	000894 USA C02/ISM/HDP/CV	7286
61285 7590 01/16/2007 JANAH & ASSOCIATES, P.C. 650 DELANCEY STREET, SUITE 106 SAN FRANCISCO, CA 94107			EXAMINER NGUYEN, DANNY	
			ART UNIT	PAPER NUMBER
			2836	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/767,792	WELDON ET AL.	
	Examiner	Art Unit	
	Danny Nguyen	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-7,9-15,17-19,22,24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-7,9-15,17-19,22,24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/23/2006 with respect to claims 1, 13, and 19 have been considered. In view of these arguments, claims 1, 5-7,9-15, 17 are moot in view of the new ground(s) of rejection, and claims 19, 22, 24, 25 are allowed.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: (element 174). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The amendments of the specification filed 10/23/2006 are accepted.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 contains the trademark/trade name "Teflon®" Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe the second layer and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1, 7, 9, 12 are rejected under 35 U.S.C. 102(a) as being anticipated by Tsuruta et al (USPN 7,042,697).

Regarding claim 1, Tsuruta discloses an electrostatic chuck (figure 1) comprises a dielectric member (3, 7) comprising a first layer (3) comprising a semiconductive material having a resistivity of from about $5 \times 10^9 \Omega \cdot \text{cm}$ to about $8 \times 10^{10} \Omega \cdot \text{cm}$ (lines 55-56, col. 3, lines 29-30, lines 38-40), a second layer (7) comprising an insulative material having a resistivity of from about 10^{11} to $10^{20} \Omega \cdot \text{cm}$ (col. 3, lines 24-33), and electrode (4) in the first layer.

Regarding claim 7, Tsuruta discloses the first layer comprises AlN (col. 3, lines 38-39).

Regarding claim 9, Tsuruta discloses the second layer comprises AlN (col. 3, lines 45-48).

Regarding claim 12, Tsuruta disclose the dielectric member is fabricated by sintering ceramic powders (col. 5, lines 39-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 6, 10, 11, 14, 15, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuruta et al (USPN 7,042,697) in view of Watanable et al (USPN 5,384,682). Tsuruta discloses all limitations of claims 1 and 13 as discussed above, but does not disclose the insulating layer comprising different materials as claimed.

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Watanable discloses an electrostatic chuck comprises insulating layer, which comprises different materials, which includes aluminum oxide, Titania oxide, silicon oxide, ZrO_2 . It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the first and second layers of Tsuruta to incorporate different materials as disclosed by Watanable in order to achieve desired erosion and mechanical strength of the dielectric layer.

7. Claims 19, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mundt (USPN 5,463,526).

Regarding claim 19, Mundt discloses an electrostatic chuck (figure 5) comprises a dielectric member (104, 110) comprising a first semiconductor layer (110) having resistivity of from about $5 \times 10^9 \Omega \cdot \text{cm}$ to about $8 \times 10^{10} \Omega \cdot \text{cm}$ (col. 7, lines 40-43) that is sufficiently low to provide rapid charging time and allow quickly accumulated electrostatic charge to substantially dissipate, and a second insulative layer (104) having a resistivity higher than the first layer and from about $10^{11} \Omega \cdot \text{cm}$ to about $10^{20} \Omega \cdot \text{cm}$ (col.7, lines 35-38), an electrode (118) embedded on the first layer. Mundt does disclose charge and discharge time as claimed. However, Mundt states that charge and discharge time can be designed depending on function of resistivity of the dielectric layer and capacitance in individual applications (col. 3, lines 19-24, col. 10, lines 11-60, col. 11, lines 3-6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply these teachings of Mundt to select the resistivity of the dielectric layer and the capacitance of the application such that to provide rapid charge and discharge to any desired time as long as it compatible with the

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requirements of other elements in the circuit in order to properly protect the wafer being breakdown. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 22, Mundt discloses the first layer comprises aluminum oxide (col. 13, lines 27-31).

8. Claims 24, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mundt in view of Watanable. Mundt discloses all limitations of claim 19 as discussed above, but does not disclose the insulating layer comprising different materials as claimed. Watanable discloses an electrostatic chuck comprises insulating layer, which comprises different materials, which includes silicon oxide, ZrO.sub.2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the insulating layer of Mundt to incorporate different materials as disclosed by Watanable in order to achieve desired erosion and mechanical strength of the dielectric layer.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (571)-272-2054. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN

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12/28/2006


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